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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,669	08/19/2003	John D. Tanner	9346	5756

27752 7590 01/09/2008

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EXAMINER	
KIM, SUN U	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/643,669	TANNER ET AL.	
	Examiner	Art Unit	
	John Kim	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-19,23 and 25-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-19,23 and 25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/26/07 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 5-7, 12-14, 16-17, 19 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack (U.S. Patent No. 4,997,553) in view of Cannon et al (US Pat. No. 6,881,348), Hill (US Patent No. 1,782,850) and Birdsong et al. (U.S. Patent No. 5,131,277),.

Regarding Claim 1, Clack discloses a water filter device for treating untreated drinking water, the water filter device comprising: a connector (#28) for providing fluid communication between the water filter device and an untreated drinking water source (#12); a low-pressure

water filter (#20) of activated carbon filter module in fluid communication with the connector, a storage housing (#24) in fluid communication with the low-pressure water filter; an automatic shutoff valve (#18) in fluid communication with the storage housing; and a dispenser (#26) in fluid communication with the storage housing. However, Clack does not disclose a water filter material comprising filter particles consisting of the mesoporous activated carbon and Filter Bacteria Log Removal (F-BLR) of the water filter. Cannon et al teach a column i.e. housing having an inlet and an outlet and a filter material disposed in the column comprising a plurality of mesoporous activated carbon particles loaded with an cationic polymer (see col. 2, lines 41-54; col. 9, lines 17-41; Table 2: Ultracarb bituminous or lignite granular activated carbon (GAC) (mesoporous) loaded with PDADMAC (polydiallydimethylammonium chloride)) for removing perchlorate or other anionic contaminate from ground water wherein activated carbon is thermally treated in ammonia inherently resulting in mesoporous and basic activated carbon (see col. 5, lines 9-19). Hill teaches that bacteria are removed from water by activated carbon (see col. 1, lines 36-58). The use of known mesoporous activated carbon particles for bacteria removal in water filter device of Clack would have been obvious to a person of ordinary skill in the art to yield predictable result of providing potable water by employing sheer bacteria removal capability of activated carbon as suggested by Hill. Furthermore, the bacteria removal capability of mesoporous activated carbon is an inherent property of activated carbon. Recitation of "the filter device is operable to remove microorganisms from said untreated drinking water flowing into said connector and out of said low-pressure water filter" is an intended use. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be

employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Mesoporous activated carbon particles of Cannon et al in a column has inherent capabilities of claimed F-BLR and F-VLR by its sheer mesoporosity of activated carbon absent persuasive evidence. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Characterization of mesorporous carbon by claimed sum of the mesopore and macropore volumes of the filter particles and the claimed ratio of the sum of the mesopore and macropore volumes of the filter particles to the total pore volume of the filter particles are inherent in the mesoporous carbon of Cannon et al by its mesoporosity absent persuasive evidence. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Birdsong et al teach a water filter with a flow rate of 40 to 300 mL/min (Col. 22, Line 67-Col. 23, Line 2). One of skill in the art would by routine experimentation find the optimum flow rate. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 3, Cannon et al teaches that activated carbon is thermally treated in ammonia inherently resulting in mesoporous and basic activated carbon (see col. 5, lines 9-19).

Regarding Claims 5-7, the mesoporous activated carbon particles of Cannon et al is substantially identical to the filter material claimed; therefore the mesoporous activated carbon particles of Cannon et al has inherent capabilities of claimed BRI (Bacterial Removal Index), VRI (Virus Removal Index) and F-BLR (Filter Bacteria Log Removal) and F-VLR (Filter Virus

Log Removal) absent persuasive evidence. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding Claim 12, Birdsong et al disclose that at least a portion of the filter vessel (#11) is oriented on a front or side portion of said water filter device (Fig. 1; col. 4, lines 55-59). It would have been obvious to one of ordinary skill in the art to modify the activated carbon filter module of Clack with the filter vessel of Birdsong et al to house the filter media including activated carbon.

Regarding Claim 13, Birdsong et al disclose that the height of the filter vessel (#14) is less than about 75% the height of the water filter device (Fig. 1). One of skill in the art would by routine experimentation find the optimum height to hold filter cartridge. It would have been obvious to one of ordinary skill in the art to make the filter vessel height as so desired or required, including as claimed to optimize filtration.

Regarding Claim 14, Clack discloses that the storage housing (#24) may be separably removed from the filter device via threads (#136) (Fig. 4).

Regarding Claim 16, Birdsong et al disclose a means of indicating the life of the water filter by a display (#620)(Col. 4, lines 61-68; Col. 20, Lines 4-18). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a display to inform the user that the filter requires replacement as suggested by Birdsong et al (Col. 20, Lines 4-18).

Regarding Claim 17, Birdsong et al disclose a sediment filter i.e. pre-filter consisting of polypropylene fibers (Col. 5, Lines 19-26). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a pre-filter to remove dirt particles as suggested by Birdsong et al (Col. 5, Lines 24-27).

Regarding Claim 19, Clack discloses a water filter device for treating untreated drinking water, the water filter device comprising a low-pressure water filter (#20) of activated carbon filter module in fluid communication with the connector (#28) (see figure 1).

Regarding Claim 26, Clack discloses that the storage housing (#24) may be separably removed from the filter device via threads (#136) (Fig. 4). Claim 26 does not provide a definite structure that allows filter vessel to be separably removed from the water filter device.

Regarding Claim 27, Birdsong et al disclose a sediment filter i.e. pre-filter consisting of polypropylene fibers (Col. 5, Lines 19-26). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a pre-filter to remove dirt particles as suggested by Birdsong et al (Col. 5, Lines 24-27).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 1 above, and further in view of Sipos et al. (U.S. Patent No. 5,371,221).

Regarding Claim 4, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose reduced-oxygen activated carbon particles. Sipos et al teach a reduced-oxygen activated carbon particles produced by eliminating air/oxygen content of the activated carbon with a sweeping gas stream (Col. 2, Lines 7-14). It would have been obvious to one of ordinary skill in the art to modify the activated carbon particles of Clack in view of Koslow, Derbyshire et al and Birdsong et al with reduced-oxygen activated carbon particles of Sipos to reduce the overall heat input needed to preheat the carbon evenly as suggested by Sipos et al (Col. 2, Lines 43-46).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 1 above, and further in view of Baerg et al. (U.S. Patent No. 3,670,892).

Regarding Claim 8, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose a float. Baerg et al teach a water filter device wherein the shutoff valve comprises a float (Col. 5, Lines 49-54). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Cannon et al, Hill and Birdsong et al with a float to turn off automatic shut off valve to shut off the flow at a predetermined water height as suggested by Baerg et al (Col. 5, Lines 49-54).

6. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claims 1 and 19 above, and further in view of Deines et al. (U.S. Patent No. 4,147,631) and Renn (U.S. Patent No. 3,268,444).

Regarding Claims 9-10, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose a flow regulator or fluid contact time or pressure. Deines et al teach a water filter device comprising a flow regulator (#145) with an incoming water pressure of between 30 and 40 psi (Col. 5, Lines 29-32). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Cannon et al, Hill and Birdsong et al with a flow regulator to set a limit on the flow rate as suggested by Deines et al (Col. 5, Lines 34-39). Renn teaches a water filter device with a fluid contact time of 15 seconds (Col. 2, Lies 30-34). One of skill in the art would by routine experimentation find the optimum fluid contact time to remove bacteria. It is not inventive to discover the optimum or workable ranges by routine experimentation when

the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

7. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claims 1 and 19 above, and further in view of Deines et al and Scavuzzo et al (U.S. Patent No. 3,333,703).

Regarding Claims 11 and 25, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose a threadably attachable filter vessel or a torque. Deines et al teach a water filter device comprising a threadably attachable filter vessel (#14)(Fig. 4). It would have been obvious to one of ordinary skill in the art to modify Clack in view of Cannon et al, Hill and Birdsong et al with the threadably attachable filter vessel to removably secure the filter to the base as suggested by Deines et al (Col. 3, Lines 29-34). Scavuzzo et al teach a filter comprising a threaded casing with cover that can be installed with a torque of about 4 to 5 ft.-lbs. (Col. 6, Lines 19-25). One of skill in the art would by routine experimentation find the optimum torque to open filter vessel from the base. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955). Claim 25 does not provide a definite structure that allows the filter vessel to be opened with claimed torque.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 1 above, and further in view of Kuh et al. (U.S. Patent No. 4,681,677).

Regarding Claim 15, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose a window. Kuh et al teach a water filter device comprising a window (#45) (see col. 4,

line 64 – col. 5, line 7). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Cannon et al, Hill and Birdsong et al with a window to view the water meter unit as suggested by Kuh et al (Col. 4, Line 64 – Col. 5, Line 4).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 1 above, and further in view of Cranshaw et al (U.S. Patent No. 6,117,319).

Regarding Claim 18, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose the volume of the storage housing. Cranshaw et al teach a water filter device comprising a storage housing having a volume of between 500 mL to 3 liters (Col. 4, Lines 1-2). One of skill in the art would by routine experimentation find the optimum volume depending on the required filtered water to be used. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 19 above, and further in view of Coates et al (U.S. Patent No. 5,707,518).

Regarding Claim 23, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose radial flow. Coates et al teach a water filter device wherein the untreated drinking water radially enters and radially flows through the water filter material (Fig. 9; Col. 5, Lines 43-50). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Cannon et al, Hill and Birdsong et al with known radial flow means to introduce

untreated drinking water to the filter cartridge as shown in Coates et al (Col. 5, line 43-53). Claim 23 does not provide a definite structure that allows a radial flow.

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Cannon et al, Hill and Birdsong et al as applied to Claim 19 above, and further in view of Wadsworth et al. (U.S. Patent No. 6,123,837).

Regarding Claim 28, Clack in view of Cannon et al, Hill and Birdsong et al does not disclose a button. Wadsworth et al teach a filter device comprising a filter release button (#90)(Figs. 4, 17-19; Col. 7, lines 20-38). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Cannon et al, Hill and Birdsong et al with a releasable button to provide a simple and efficient engagement and release means as suggested by Wadsworth et al (Col. 2, Lines 44-50).

12. Applicant's arguments with respect to claims 1, 3-19, 23 and 25-28 have been considered but are moot in view of the new ground(s) of rejection. Applicants' arguments are addressed in above paragraphs 3-11.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is 571-272-1142. The examiner can normally be reached on Monday-Friday 7 a.m. - 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Kim/
Primary Examiner
Art Unit 1797

JK
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